

**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

1-10 (Canceled)

11. (New) A method for processing at least one signal representing a physical output quantity in an industrial installation, comprising the steps of:
- receiving the at least one signal representing the physical output quantity;
 - determining an output signal representing a derived physical target quantity from the at least one signal, said target quantity having a target unit; and
 - automatically converting a unit of the physical quantity into the target unit of the target quantity.
12. (New) The method of claim 11, wherein the converting step includes the step of considering a table in which conversion factors necessary for converting the unit of the at least one signal are deposited.
13. (New) The method claim 12, wherein the units in the table are broken down into basic SI units.
14. (New) The method of claim 13, wherein various units are arranged underneath one another in a column and conversion parameters for breaking down a unit in the table into a basic SI units are listed column by column in rows.

15. (New) The method of claim 13, wherein the break-down into a basic SI unit is effected with the aid of the formula

$$x [E] = (y[SI] * f * b^e + c) * \prod_i [SI]_i^{e[SI]_i}$$

wherein x is the value of the physical quantity in the unit [E], y is the value of the physical quantity in a basic SI unit, f is the conversion factor, b is the base and e is the exponent of the base b with which the conversion factor is weighted, c is an offset constant, i is a running index and $\prod_i [SI]_i^{e[SI]_i}$ is the product sum of basic SI units that are each weighted with a respective exponent $e[SI]_i$.

16. (New) The method of claim 12, further comprising the steps of:
including the unit of the physical quantity in a calculation formula,
converting the unit of the physical quantity into a basic SI unit for determining the target quantity, and
specifying the target quantity in a desired target unit.
17. (New) The method of claim 11, further comprising the step of inputting a calculation formula for determining the target quantity.
18. (New) The method of claim 17, further comprising the step of automatically subjecting the calculation formula to a plausibility check using the target unit.
19. (New) The method of claim 11, further comprising the step of displaying the target quantity in accordance with a predetermined standard.
20. (New) The method of claim 11, further comprising the steps of detecting the at least one signal from an active operation in an industrial process using a mobile diagnostic and evaluating system, and generating the target quantity with the help of the system.